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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,007	03/07/2005	Klaus Schoeller	DE 020204	1124

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EXAMINER

WALFORD, NATALIE K

ART UNIT PAPER NUMBER

2879

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/18/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/527,007	Applicant(s) SCHOELLER ET AL.	
	Examiner Natalie K. Walford	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The Amendment, filed on October 9, 2006, has been entered and acknowledged by the Examiner. Newly added claims 11-15 has been entered. Claims 1-15 are pending in the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 and 4-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Muto (US 6,670,765).

Regarding claim 1, Muto discloses a high-pressure discharge lamp (item 10) in figure 1 comprising: an inner vessel with a discharge chamber (item 2), with at least two electrodes (item 3) extending into the discharge chamber, wherein the discharge chamber contains an ionizable filling comprising: at least one rare gas (column 9, lines 45-47), 0 mg to 10 mg of mercury (column 11, lines 37-41) and a metal halide mixture comprising: 40 to 80% by weight of sodium halide (column 9, line 40), 25 to 55% by weight of scandium halide (column 9, line 40), 1 to 15% by weight of indium halide (column 5, lines 23-26), and 0 to 34% by weight of thallium halide.

Regarding claim 2, Muto discloses the high-pressure discharge lamp as claimed in claim 1, wherein a color point of the light emitted by the high-pressure discharge lamp in a CIE 1931 diagram has an X-color coordinate in a range from 0.345 to 0.375 (FIG. 8), and a Y-color coordinate in a range from 0.350 to 0.375 (FIG. 8).

Regarding claim 4, Muto discloses the high-pressure discharge lamp as claimed in claim 1, wherein a color temperature of light emitted by the high-pressure discharge lamp lies in a range from 4300 K to 5000 K (FIGS. 7 and 8 and column 10, lines 21-35).

Regarding claim 5, Muto discloses the high-pressure discharge lamp as claimed in claim 1, wherein luminous efficacy of light emitted by the high-pressure discharge lamp is at least ≥ 70 lm/W (FIGS. 5 and 7 and column 9, lines 15-17).

Regarding claim 6, Muto discloses the high-pressure discharge lamp as claimed in claim 1, wherein a color point change with respect to an X-color coordinate and an Y-color coordinate in a CIE 1931 diagram amounts to $\leq 6\%$ over a period of operation of the high-pressure discharge lamp of 1500 hours (FIGS. 7 and 8).

Regarding claim 7, Muto discloses the high-pressure discharge lamp as claimed in claim 1, wherein the at least one rare gas included xenon (column 9, lines 45-47), and the ionizable filling further comprises: 50 to 70% by weight of sodium iodide (column 9, line 40), 30 to 50% by weight of scandium iodide (column 9, line 40), 1 to 15% by weight of indium iodide (column 5, lines 23-26), and 0 to 10 mg mercury (column 11, lines 37-41).

Regarding claim 8, Muto discloses the high-pressure discharge lamp as claimed in claim 1, wherein the at least one rare gas included xenon (column 9, lines 45-47), and the ionizable filling comprises: 50 to 60% by weight of sodium iodide (column 9, line 40), 35 to 45% by

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weight of scandium iodide (column 9, line 40), 1 to 15% by weight of indium iodide (column 5, lines 23-26), and 0 to 10 mg mercury (column 11, lines 37-41).

Regarding claim 9, Muto discloses an ionizable filling for a discharge lamp, the ionizable filling comprising: at least one rare gas (column 9, lines 45-47), 0 mg to 10 mg of mercury (column 9, lines 45-47), and a metal halide mixture comprising: 40 to 80% by weight of sodium halide (column 9, line 40), 25 to 55% by weight of scandium halide (column 9, line 40), 1 to 15% by weight of indium halide (column 5, lines 23-26), and 0 to 34% by weight of thallium halide.

Regarding claim 10, Muto discloses a lighting unit (column 1, lines 9-16) comprising the high-pressure discharge lamp as claimed in claim 1.

Regarding claim 11, Muto discloses the high-pressure discharge lamp of claim 1, wherein a color point of light emitting by the high-pressure discharge lamp in a CIE 1931 diagram has a X-color coordinate in a range from 0.350 to 0.370 (FIG. 8), and Y-color coordinate in a range from 0.355 to 0.370 (FIG. 8).

Regarding claim 12, Muto discloses the high-pressure discharge lamp of claim 1, wherein a color point of light emitting by the high-pressure discharge lamp in a CIE 1931 diagram has a X-color coordinate in a range from 0.355 to 0.360 (FIG. 8), and Y-color coordinate in a range from 0.350 to 0.375 (FIG. 8).

Regarding claim 13, Muto discloses the high-pressure discharge lamp of claim 1, wherein a color temperature of light emitted by the high-pressure discharge lamp lies in a range from 4700 K to 4800 K (FIGS. 7 and 8 and column 10, lines 21-35).

Regarding claim 14, Muto discloses the high-pressure discharge lamp as claimed in claim 1, wherein luminous efficacy of light emitted by the high-pressure discharge lamp is at least ≥ 75 lm/W (FIGS. 5 and 7 and column 9, lines 15-17).

Regarding claim 15, Muto discloses the high-pressure discharge lamp of claim 1, wherein a color point change with respect to an X-color coordinate and an Y-color coordinate in a CIE 1931 diagram amounts to $\leq 5\%$ over a period of operation of the high-pressure discharge lamp of 1500 hours (FIGS. 7 and 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muto (US 6,670,765) in view of Akutsu et al. (US 4,047,069).

Regarding claim 3, Muto discloses the high-pressure discharge lamp as claimed in claim 1, further comprising an outer bulb surrounding the inner vessel (FIG. 1, item 1), but does not expressly disclose that the outer bulb comprises neodymium oxide, the neodymium oxide content being substantially 2 to 20% by weight with respect to the total weight of the outer bulb, as claimed by Applicant. Akutsu is cited to show a discharge lamp in figure 1 with a bulb (item 23) that contains neodymium (column 3, lines 47-48). Akutsu teaches that when neodymium oxide is present on the outer bulb, light transmissivity can be increased (FIG. 2). It would have

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ordinary skill in the art at the time the invention was made to have the outer bulb comprises neodymium oxide, the neodymium oxide content being substantially 2 to 20% by weight with respect to the total weight of the outer bulb, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Response to Arguments

Applicant's arguments filed October 9, 2006 have been fully considered but they are not persuasive. Regarding Applicant's arguments, the Examiner respectfully disagrees. In regards to the Muto reference being in mole percentage and not weight percentage, it is noted that when the ranges are converted, by conventional methods, they significantly overlap the weight percentage ranges claimed in the current application. Furthermore, it is noted that since the mole percentages of Muto overlap the weight percentages as claimed by Applicant, that the coordinates as show in figure 8 overlap as well. Also, the Examiner notes that the Akutsu teaches that light transmissivity can be increased by neodymium oxide present. One with ordinary skill in the art would reasonably understand that the bulb could comprise a neodymium oxide coating.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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nkW

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12/10/06

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